

Translation

PATENT COOPERATION TREATY

PCT/JP2003/016444



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference NEC03P237A	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP2003/016444	International filing date (<i>day/month/year</i>) 22 December 2003 (22.12.2003)	Priority date (<i>day/month/year</i>) 17 January 2003 (17.01.2003)
International Patent Classification (IPC) or national classification and IPC H03F 1/32		
Applicant NEC CORPORATION		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>4</u> sheets.
3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 22 December 2003 (22.12.2003)	Date of completion of this report 28 September 2004 (28.09.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP03/16444

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	6-7, 9-10	YES
	Claims	1-2, 4-5	NO
Inventive step (IS)	Claims		YES
	Claims	1-2, 4-7, 9-10	NO
Industrial applicability (IA)	Claims	1-2, 4-7, 9-10	YES
	Claims		NO

2. Citations and explanations

Document 1: WO, 01-39367, A1 (Telefonaktiebolaget LM Ericsson), 31 May, 2001 (31.05.01)

Document 2: JP, 2002-124840, A (Mitsubishi Electric Corp.), 26 April, 2002 (26.04.02)

Claims 1, 2, 4 and 5

The subject matters of claims 1, 2, 4 and 5 do not appear to be novel or to involve an inventive step, since they are described in document 1 (page 11, line 12 to page 12, line 25, Fig. 3) cited in the ISR.

Claims 6, 7, 9 and 10

The subject matters of claims 6, 7, 9 and 10 do not appear to involve an inventive step in view of documents 1 and 2 cited in the ISR.

Document 2 (paragraphs 0049-0054, Fig. 5) cited in the ISR describes that a predistorter circuit is installed upstream of a peak amplifier of a Doherty type amplifier.

Document 1 (page 11, line 12 to page 12, line 25, Fig. 3) cited in the ISR describes that one predistorter circuit each is installed upstream of a carrier amplifier and upstream of a peak amplifier.

Furthermore, in the known conventional Doherty type amplifier {for example, see document 1 (Fig. 3) and document 1 (Fig. 15) respectively cited in the ISR}, no predistorter circuit is installed either upstream of a carrier amplifier or upstream of a peak amplifier.

Considering the above, a person skilled in the art could have, as required, designed whether or not one predistorter circuit each should be installed upstream of a carrier amplifier or upstream of a peak amplifier.

Meanwhile, claims 1, 2, 4-7, 9 and 10 do not state that an "input signal" is an "RF signal."

Moreover, in the description of claim 1, the connection relation between an "input branch circuit" and a "first predistorter circuit" and the connection relation between an "input branch circuit" and a "second predistorter circuit" are not specified at all, and in the description of claim 2, the connection relation between an "input branch circuit" and a "peak amplifier" and the connection relation between an "input branch circuit" and a "predistorter circuit" are not specified at all.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP2003/016444

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
 pages _____ 1-10 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☒ the claims:
 pages _____ 1, 2, 4, 6, 7, 9, 10 _____, as originally filed
 pages _____, as amended (together with any statement under Article 19
 pages _____, filed with the demand
 pages _____ 5 _____, filed with the letter of _____ 31 May 2004 (31.05.2004)
- ☒ the drawings:
 pages _____ 1-5 _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
 pages _____, as originally filed
 pages _____, filed with the demand
 pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☒ the claims, Nos. _____ 3, 8, 11 _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.